

REMARKS

Upon entry of the present amendment, claims 1 and 7-8 will remain pending in the above-identified application and stand ready for further action on the merits.

Claim 1 has been amended, and claims 3-6 have been cancelled.

The amendments made herein to the claims do not incorporate new matter into the application as originally filed. For example, the amendment to claim 1 finds support in claim 6, which has been cancelled, and at page 8, lines 8-10 of the instant specification. Further, the instant amendment does not raise substantial new issues for the Examiner's consideration and requires no further search on the Examiner's part. At the same time, the instant amendments put the pending claims in condition for allowance and into a more proper format for issuance in a United States patent, by overcoming all outstanding rejections and objections of record.

Accordingly, entry of the present amendment is respectfully requested.

Rejections under 35 U.S.C. § 112, First and Second Paragraphs

At pages 3-4 of the outstanding Office Action, claims 1 and 6-8 are rejected under 35 U.S.C. § 112, first and second paragraphs because of the term "substantially".

In this amendment, the term "substantially" has been deleted in claim 1. (However, the scope of claim 1 is not narrowed by the deletion of the term since the term is deleted in order to clarify the present invention.) Thus, each of the rejections has been rendered moot.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

Rejection under 35 USC § 103

Rejection over JP '120 or JP '120 in view of JP '351

At pages 4-5 of the Office Action, claims 1, 2 and 7 have been rejected under 35 USC § 103(a) over JP '120 (JP 64-65120), and further claim 8 has been rejected under 35 USC § 103(a) over JP '120 in view of JP '351 (JP 10-231351).

In this amendment, claim 1 has been amended by incorporating the feature of claim 6. Accordingly, each of these rejections has been rendered moot. Reconsideration and withdrawal of each of these rejections is respectfully requested.

Rejection over JP '351 in view of US '907

At pages 5-6 of the Office Action, claims 1, 2 and 6-8 have been rejected under 35 USC § 103(a) over JP '351 (JP 10-231351) in view of Sato US '907 (US 4,552,907).

Reconsideration and withdraw of each of these rejections is respectfully requested based on the following considerations.

The Present Invention and Its Advantage

The present invention relates to a liquid epoxy resin composition. The liquid epoxy resin composition can be used, for example, for semiconductor encapsulation which cures into a cured product that has improved adhesion to the surface of silicon chips and especially photosensitive polyimide resins and nitride films and improved toughness.

Specifically, as recited in claims, the present invention has the feature of, for example,

“(A) a liquid epoxy resin consisting of a bisphenol type epoxy resin”.

The advantages of the present invention are fully proved by Examples of the specification as well as the Declaration of Mr. Kazuaki Sumita filed on January 23, 2006. For example, when the molar ratio of the liquid epoxy resin (A) and the aromatic amine curing agent (B) is more than 0.85/1 $[=(A)/(B)]$, the toughness K_{Ic} can be lowered (e.g., less than 3.5 of the toughness K_{Ic}) and thermal shock would be inferior. Further, the incorporation of a silane coupling agent would cause voids in the composition.

Distinction over JP '351 (JP 10-231351)

JP '351 merely discloses that the epoxy resin includes 5-30 wt% of an epoxy resin of formula I (see, for example, Abstract of JP '351). However, JP '351 fails to specifically disclose or suggest "(A) a liquid epoxy resin consisting of a bisphenol type epoxy resin", which is a feature of the present invention.

Distinction over Sato US '907 (US 4,552,907)

Sato US '907 merely discloses many kinds of epoxy resins: glycidyl ether epoxy resins; phenol novolak epoxy resins; cresol novolak epoxy resins; alicyclic epoxy resins; glycidyl ester epoxy resins; linear aliphatic epoxy resins; halogenated epoxy resins; and the like, at column 4, lines 6-10. However, an epoxy resin specifically disclosed in Sato US '907 is only an orthocresol novolak epoxy resin (see, for example, working Examples of Sato US '907).

Accordingly, Sato US '907 also fails to specifically disclose or suggest the use of "(A) a liquid epoxy resin consisting of a bisphenol type epoxy resin".

Combination of the Cited References

A *prima facie* case of obviousness is not established even if the cited references are combined since none of the cited references disclose or suggest the feature of “(A) a liquid epoxy resin consisting of a bisphenol type epoxy resin”, which is recited in claims. Likewise, it follows that a person having ordinary skill in the art would not be motivated by any of the teachings of the cited references to arrive at the present invention.

Accordingly, the cited art does not provide any motivation to arrive at the instant invention as claimed, and moreover the instant invention possesses unexpected and advantageous properties not rendered obvious by the cited art.

Accordingly, the present invention (claim 1 and dependent claims 7 and 8) are neither anticipated by nor obvious over the cited references.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of the pending claims 1, 7 and 8 are allowed under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gerald M. Murphy, Jr. (Reg. No. 28,977) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

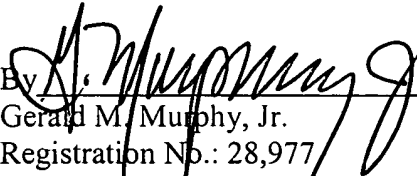
Application No. 10/618,765
Amendment dated May 8, 2006
After Final Office Action of February 7, 2006

Docket No.: 0171-0991P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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